

Manual

Infrared cameras

Contour IR



infrared viewers

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Safety requirements

- The customer is responsible for light source safety while using a camera as a standalone device or integrated into system.
- The customer must consider protective measures if necessary.
- While assembling or operating camera, do not stare at the direct laser (or other source) light even with safety goggles.
- This device will not protect you from direct or high light radiation. Use camera with caution and appropriate attenuation
- Electrical safety requirements must be complied while operating this device.

About

The near infrared CONTOUR-IR camera is designed for observation, registration and recording radiation in near infrared zone in 400-1700 nm spectral region emitted by infrared sources such as GaAs IR LED, diode or solid-state lasers as well as for use in infrared microscopy, infrared luminescence, examination of documents, forensics, art restoration and etc.

The camera is based on a high-sensitive low-noise silicon CCD sensor and two-photon absorption phenomenon. Superior image quality is obtained with micro lens system and special coating layer on a silicon.

Exposure and Sensitivity

It has four-stage automatic gain system. Exposition time depends from the level of light exposure within the range from 10 μ s up to 20 ms. The sensitivity of the camera increases automatically.

For low power infrared illumination observation decrease any external light background to increase noise to signal contrast. Use cut-off or interference filters for better contrast.

Operation

CAUTION! Do not use direct laser radiation on a sensor.

CAUTION! Use the attenuators and beam splitters to decrease of laser radiation.

On the panel of the camera (Fig. 1) are:

1. Socket for power input 12V, 5.0 x 2.1mm plug.
2. Video output.
3. Objective with IR cut-off filter.
4. Tripod connection ¼ inch

The Maintenance instruction

- Keep device away from mechanical damage and moisture.
- Protect the lenses from dirt. If necessary, clean them with clean soft cloth; remove oiled spots or deposit with cotton wool slightly wetted in alcohol.
- Use stabilised certified AC/DC 110-220V/12V adapter (not included).

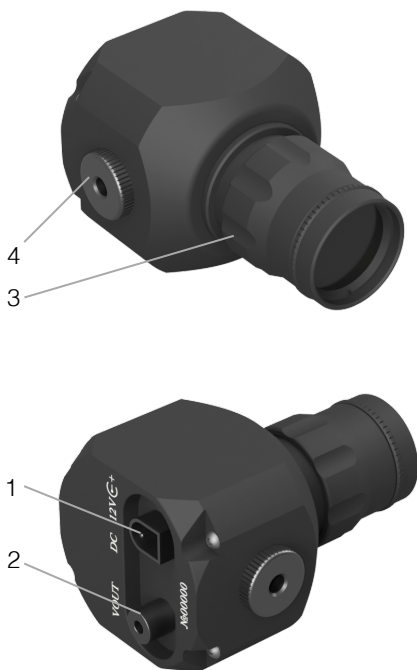


Figure 1. Contour IR camera

Spectral sensitivity

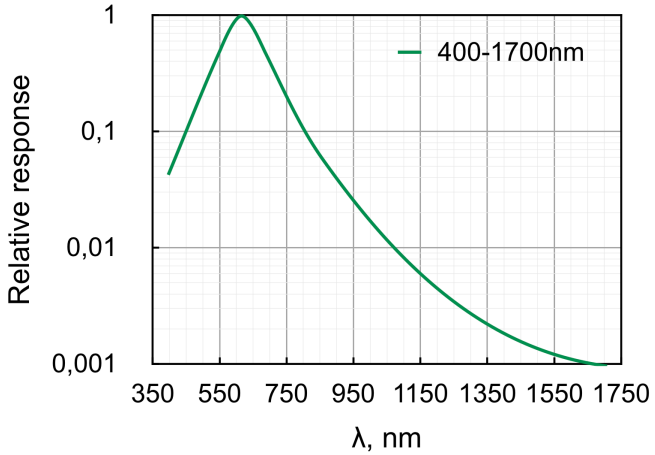


Figure 2. Spectral sensitivity (Contour IR camera)

Power density

The approximate minimum of power density of radiation on an object at the signal-to-noise ratio =10 (20dB) on a 0,1m distance:

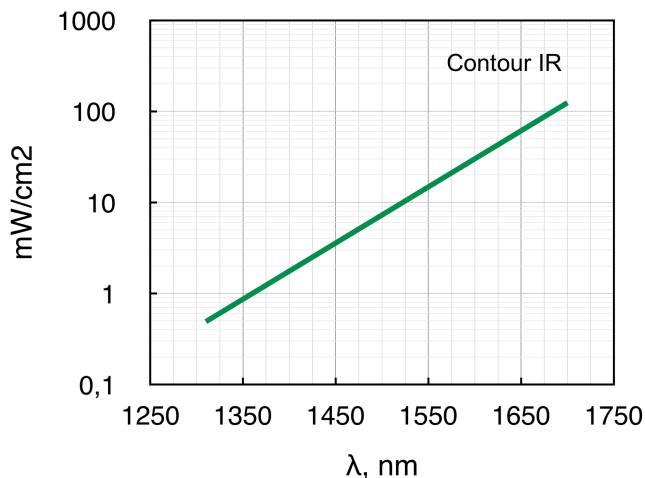


Figure 3. Power density (Contour IR camera)

Technical information

Spectral sensitivity	400-1700nm
Sensor size	1/3 inches, 6.0mm x 4,96mm
Max. resolution	570 TV lines
Resolution at max. Sensitivity	135 TV lines
Lens	F1.4/26mm, CS-mount
Field of view	10°
Focusing range	0.2m (or 0.1m)* to inf
Ratio signal-to-noise	48 dB
Gamma	0.45
Video output	CCIR Standart composite video
Range of exposure	10µs - 20ms
Power supply	DC 10... 14V, 150mA
Temperature range	+5... +40°C
Weight	0,23 kg
Dimensions	50x58x90 mm
* with distance ring	

Standard kit includes:

- IR camera;
- distance ring;
- IR cut-off filter;
- manual;
- case.

Accessories available upon request;

- Iris diaphragm
- Neutral density filter for lens 1X(3-5% @ 1064nm)
- Neutral density filter for lens 2X(3-5% @ 1064nm)
- Microscope adapter
- Lens 2X (F1.8/50mm)
- Lens 1X(F1.4/26mm)
- Distance ring
- C-mount ring for any CCD lenses

Warranty

Infrared viewing device CONTOUR-IR meets specifications of the manufacturer and declared operation.

The warranty period of the device is 24 months from the date it was sold to the consumer.

Claims not accepted, and warranty repair are not made, because of the improper use or incorrect service and maintenance of product instructions. The company shall not accept warranty claim:

- non-authorized alteration,
- disassembling device,
- mechanical or any external damages,
- if 2 year warranty term has expired.

Serial No.

Version No.

Spectral range

Date of Issue

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